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WV PURCHASING  
DIVISION

**Expression of Interest  
West Virginia – General Services Division  
Third Party Peer Review Building Four  
CEOI 0211 GSD2000000005**

**June 24, 2020**



**Department of Administration  
Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130**

## Table of Contents

A Letter from Our Owner

A Letter from Mr. Kennedy

TAB 1:	Firm Profiles Miller Engineering Organization Chart
TAB 2:	Goals
TAB 3:	Staff Qualifications Craig Miller, PE Travis Taylor, PE Jack Jamison Joseph Machnik Eyad Alhalabi Certifications and Degrees Applicable to This Project Richard Kennedy John Dodds References Reference Letters Eckles MacBracey PPH Fairchance
TAB 4:	Experience Building 5 Elevator Replacement Various Elevator Modernizations Mon Co. Schools ALC Canaan Valley Resort B25 Ventilation Evaluation Capital Central Chiller Plant Domain at Granville Mapletown Elevator AB Withers Brandon Hall MCBOE Deferred Maintenance



TAB 5:      Signature Page  
                 Designated Contact  
                 Addendum Acknowledgement Form  
                 Purchasing Affidavit

## The Miller Engineering Difference



We are very pleased to submit our response for the Building Four Third Party Peer Review Services. MEI has teamed with Richard A. Kennedy and Associates, elevator consultants, to deliver the requested services. We believe our combined experience in HVAC renovations, elevator evaluation and modernization, third party evaluations, and third party construction administration, along with previous projects for WV General Services Division, make our team a great fit for these projects. We

have performed the services requested in the RFP over many years, exceeding the minimum years of experience, and the qualifications set forth in the EOI. Miller and RAK have previously teamed on several projects with great success. We are currently teamed on the Building 5 Elevator Project and the Various Elevators Modernizations Project. Both are proceeding well. Kennedy brings some 75 years of experience in their two team members, and they are both Qualified Elevator Inspectors with long time operational experience.

We're not your typical MEP firm; we ensure our designs meet very specific, time-tested criteria, including but not limited to being constructible, operable and maintainable. Based on the EOI, we see those methodologies as valuable to GSD on the project. Our hands-on staff takes great pride in their construction and operations backgrounds, which help us visualize the project as it would be built instead of just lines on paper. We perform takeoff level cost estimating whenever possible and some level of commissioning occurs on each project, due to our "boots on the ground" construction administration approach.

Providing third party evaluation and review requires a collaborative mindset from day one. We envision our role on this project as a resource to help GSD ensure the quality and reliability of the final product. By performing the tracking of issues and concerns from the onset in a positive and approachable manner, and working with all parties, a more complete and comprehensive project can result. MEI has performed a great many renovations which require review of existing designs in regards to codes and standards, as well as operational realities. We offer that extensive experience to this project. We're proud to say that our change order percentage over the last 8 years is less than 0.1%, and that's not just a statistic; it's a proclamation of our commitment and determination to make sure things are done right the first time, every time.

Miller Engineering has completed several successful projects for WV General Services Division in recent years. We are currently the MEP consultant on the Sixth Floor Fit-out of Building 25, the Building 25 Ventilation Evaluation, and the Capital Chiller Ice Plant projects. Additionally, MEI has delivered many projects for WV Division of Natural Resources and the WV Department of Agriculture. We are very familiar with the rules and regulations of the WV Purchasing Department in relation to project documentation and process. We appreciate your consideration of Miller Engineering for the Engineering Services for the Building Four Third Party Peer Review Services.

Best regards,



Craig Miller  
President/Owner  
Miller Engineering, Inc.

June 22, 2020

Craig Miller, PE  
429 Laurel Run Road  
Garards Fort, PA 15334

RE: WV Building 4 Third Party Review

Dear Mr. Miller:

Richard A. Kennedy & Associates (RAK) express a sincere interest to partner with you on the subject proposed solicitation. RAK has provided elevator consulting services to the General Services Division of the state of West Virginia for a period of five years from 2003-2009. Currently, we are working with you on the modernization of the freight elevator in Building #5 and the Various Elevator Modernizations Project for WV GSD.

RAK requires all associates to maintain current Qualified Elevator Inspector's certification (Q.E.I.) and yearly continuing education of elevator mechanic's training (C.E.T.) and state licensing. Our education and working knowledge of the most current safe practices and standards in the elevator industry assures the customer of a quality work product.

We have a working knowledge of the issues and concerns faced in modernizing the Building 4 elevators, and are sure we can be of value to the Owner's design team as a review consultant.

RAK has performed complete elevator modernization consulting services in various capacities. A few of our past projects are submitted for review.

- State of West Virginia  
Building 3, Capitol West Wing, Bldg 5, Bldg 22
  - American Eagle Stores (Elevators & Escalators)  
New York City (5 locations, new & modernizations)  
Las Vegas, Philadelphia, San Francisco
  - Resort Quest Properties  
Bethany Beach, DE  
(Modernization of 20 high rise residential buildings)
  - Harford County  
Bel Air, MD  
Modernization of elevators in various buildings
-

Additionally, I have been performing similar reviews and serving as a professional witness for over 30 years. These reviews, often including design and fabrication documents, employ the same skill set required for this project.

We look forward to the opportunity to work with you again on behalf of WV GSD.



## TAB 1 – FIRM PROFILES







## Firm Profile

*MILLER ENGINEERING is a solely held (S) corporation owned by Craig Miller PE, President. The corporation maintains a Certificate of Authority with the WV State PE Board and has carried professional liability insurance since its inception. Neither the firm nor its professional engineers have ever faced disciplinary action in any form from the states in which they are registered.*

*Our engineered solutions involve a detailed assessment process. We approach each and every project with the guiding principle that buildings are designed to be livable and function in their intended purpose with reasonable maintenance. Neither the firm nor its professional engineers have ever faced disciplinary action in any form from the states in which they are registered.*

*Over the past 17 years Miller Engineering, Inc. (MEI) has engineered solutions in MEP system upgrades, repairs and renovations for projects of all scopes and sizes, with clients ranging from private owners to local and state governments. With a strict attention to detail and commitment to delivering a job done well and done right the first time, every time, **MEI has accumulated a change order percentage of less than 0.1% over the past 10 years.***

*Our team has unique skill-sets regarding engineered renovation solutions. Each member of the team has hands-on mechanical system experience including installation, construction, design and facilities operations.*

*Miller Engineering takes pride in being **different by design**, and that difference shines through in all phases of our work and continued relationships with our clients.*

### Additional Benefits

- Experienced and Licensed Professional Engineers
- Quality, Value-Engineered Project Delivery
- Qualified Construction Representative on Staff
- LEED-AP Certified
- Below Industry Change Order Status
- Building Information Modeling
- Interactive Solutions Provider
- Emergency Facility Response

## Engineering Design and Consultation

- Mechanical
- Electrical
- Plumbing
- HVAC Design
- Renovation
- New Construction
- Building Information Modeling

### HVAC Design

Commerical, Institutional  
Educational  
Bldg, and District Chiller Plants  
Plumbing and Piping

### Construction Administration

Maintenance/Facility Plans  
Contract Administration  
Code Observation

### Communication System

Intercomm & Public Address  
Voice/Data/CATV

### Energy

Power Supply (Main/ Standby)  
Green & Renewable Consulting  
Systems Utilization & Upgrades  
Emergency Power systems

### Facility Utilization

Energy Conservation Projects  
Adaptive Re-use  
Planning/Life-Cycle Control  
Engineered Replacement  
Life Safety, Fire Alarm/ Sprinkler  
Access Control  
Emergency Response  
Industry Experience

Education

Local & State Government  
Commercial Development

Healthcare

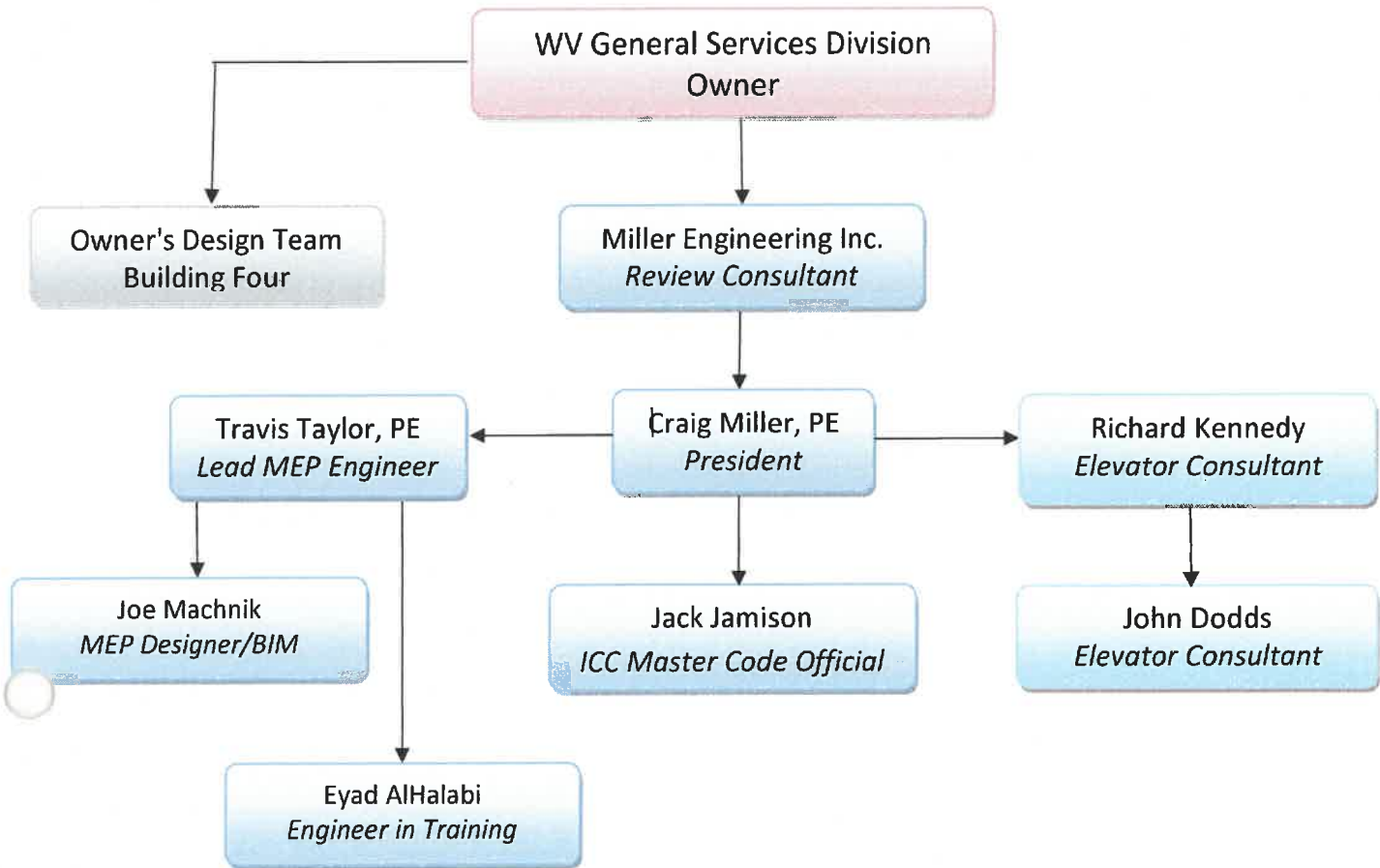
Department of Parks &

Recreation

Industrial



# Organization Chart – Review





## TAB 2 – GOALS



## Third Party Peer Review Building Four Project Goals

### **PROJECT GOALS**

Miller Engineering has reviewed the project description under Section Three of the Expression of Interest and offers the following outline of project approach concepts, methodologies, core-values, and prior pertinent experience. Note that the project data sheets in section four (4) further describe many of the projects referenced in this section.

### **GOAL ONE – Qualifications and Experience**

#### **QUALIFICATIONS**

As can be seen by the resumes in Tab 3, the team has a unique blend of both academic training with continuing education, and experience based qualifications. This blend is what ensures that the reviews and suggestions presented during the project are both soundly based in engineering principles as well as in real world practicality. This approach provides the best of both worlds to the Owner.

As a Professional Engineer with years of trades' experience, Craig is not only highly qualified in design but also in constructability and maintainability; asking the questions "can it be built as designed as drawn?" and "can it be operated effectively?". His experience helps him to truly understand the "big picture" across many disciplines, and Owner needs. In a project he understands how all the pieces of the puzzle need to fit for the project to work. Having commissioned many system through the years, he understands the process required to not only design, but to construct and bring a system on-line, and verify that it operationally meets the design intent. Kennedy and Dodds have over 70 years combined experience in elevator systems. They both maintain certifications as Qualified Elevator Inspectors (Q.E.I.) and yearly continuing education of elevator mechanic's training (C.E.T.) as well as state licensures. Rick has been a recognized national third party consultant to Owners and attorneys for over 30 years. Jack Jamison has been a third party inspector and code consultant for some 20 years, after 30 years' service in the electrical trades. Jack is an ICC Master Code Official in multiple tracks of certification. Travis, in addition to his Professional Engineer licensure, engineering education, and professional experience, brings a number of years as a project manager for a large electrical contractor on large scale projects throughout the state. This qualifies him to also see the bigger vision of a project, particularly in terms of coordination of electrical work to mechanical, architectural, and other project needs.

#### **EXPERIENCE**

In reviewing the resumes and information included in this proposal, it is clear that MEI and Kennedy have previously performed like projects for GSD and others. Both Craig and Rick having many years of experience of the type of services required by the project through design, construction, and work as a professional witness. In the

performance of many renovations through the years, a great deal of design review has been performed. In most cases, the original designers are not available, so we are forced to recreate the design assumptions and identify the deficiencies as part of our design process.

While Craig has worked on many elevator modernization projects through the years, particularly at WVU, Rick Kennedy and John Dodds are the team resource for elevator code compliance and constructability issues. We often refer to Rick as a 'walking human code book' when it comes to elevators. Rick and John bring a unique knowledge not only of elevator codes, but of the interaction and requirements that elevators place on other systems such as HVAC, Electrical, and Fire Alarm. Extensive experience in third party review of systems and designs, coupled with years of practical knowledge, helps to provide feedback to the design team in their efforts to meet the Owner's needs and interests; along with current codes. Of particular long term importance is to ensure the elevator systems are non-proprietary to the greatest extent possible. Rick and John have the knowledge of the vendors and systems to help the Owner and Design team avoid a proprietary system.

A predominance of the work performed by MEI is renovation work which involves the review of the original designs to determine any deficiencies or uncertainties they may contain. These deficiencies or uncertainties must then be communicated to the Owner in a clear, concise, accurate, and objective manner. Written reports, and review meetings are the typical methods for communicating such issues or concerns. It is often necessary to educate the Owner in regards to codes and standards, then detail how they have or have not been effected in the design we are reviewing for modification. Additionally, Craig performed such detailed review work as a staff engineer at WVU on many tens of millions of dollars in project value, reviewing the work of WVU's consultants for appropriateness of design, constructability, thoroughness of documentation, adherence to the design goals, and maintainability. While at WVU, Craig developed an issues tracking methodology matrix that he still uses to this day to track design needs and concerns for inclusion in a project. A version of this would likely be used by our team.

Our standard is to perform some level of commissioning on every project we design, verifying the performance of the systems under real-world conditions. This standard goes back to the beginning of MEI and our first project. While the level of commission varies from project to project, the commitment remains the same; reliable systems. In estimating, we have utilized a "take-off" level estimating method since our beginnings some 17 years ago. The estimates incorporate, to the greatest extent possible, our design basis quantities and materials; shying away from square footage costs. Industry standard materials utilize published costs, which we verify when we doubt their accuracy. MEI couples material quotes for large components with factors such as constructability, complexity, and locality, to develop our estimates. Labor for off the book specialties are estimated whenever possible. Our estimates generally fall within plus or minus ten percent when bid. Both Miller and Kennedy have been performing such estimates for their entire careers.

## REVIEW

Review is envisioned as a four pronged approach: preparation, evaluation, communication, and support. The first, preparation, will be a review of the project requirements and Owner's needs in the form of the technical program. This a critical piece of the process, as the program sets the design goals and constraints the design on which the design would be evaluated. We would envision attending or conferencing in to critical meetings, being copied on project memoranda and meeting minutes. We would expect to walk the building and review the existing conditions, probably more than once, and review and existing drawings. This preparation will ensure that the review team has the background to perform the reviews quickly and efficiently. In the evaluation phase, we will perform reviews of the document submissions in terms of technical merit, adherence to the program, interface to the existing building and campus systems, clarity, constructability, maintainability, and comparative cost. Any additional factors determined by the Owners would be included.

## WRITTEN REPORTS

MEI has performed many reviews resulting in written reports, recent projects with GSD and others which included reports include:

- Capital Complex Chiller Plant Modifications
- GSD Various Elevator Modifications
- Buildings 3, 8, 54, and 86 IAQ Reviews
- Blackwater Falls Lodge Renovations
- Monongalia County Schools Deferred Maintenance and Energy Projects

Some excerpts from those reports follow:

- The chilled and hot water system are rather complex and required significant effort to follow through the drawings to unravel. The primary chilled water system utilizes a very large plate and frame-heat-exchanger to isolate the building's chiller water system from the loop. With one recent exception for a small building with heat pumps, no other building on the central chilled water system loop is configured this way. Though the heat exchanger is very large, there is still a temperature rise in the chilled water at design condition due to the laws of thermodynamics.
- After a very detailed review of the piping routings throughout the building drawings, and the equipment schedules, the use of the extra heat exchangers becomes somewhat clearer. The schedule indicates the cooling capacity as sensible only and the discharge water temperature of the secondary systems heat exchanger as 55F. These two factors indicate the design intent was to reduce the air temperature only and the secondary heat exchangers exist to temper the chilled water to prevent the cooling coils from reaching dewpoint and condensing water. This is a complicated, but valid approach which could seemingly have been eliminated by either installing drain piping, or making the units four pipe, both of which would have been relatively inexpensive during a

renovation where new piping was being installed and would have reduced the number of pumps, heat exchangers, controls, and complexity of the piping system. While visible in hindsight with intensive line-by-line review, it would be easy to miss this approach in a typical owner drawing review. Again, the approach is not invalid, it just seems overly complicated.

- During our review of the project drawings, we noted that the cooling load design ambient (outside) conditions of the building renovation were based on 95F dry bulb/ 75F wet bulb. This is higher than the ASHRAE conditions for Charleston of 91F dry bulb and 73F wet bulb. This information raises the possibility that there is some extra capacity in the system that might allow an increase in the ventilation rate, at least from a design standpoint. From a hard-ware standpoint, limiting factors to doing so would be duct size and maximum static pressure, cooling coil face velocity, ERV fan capacity and horsepower, chilled water system capacity, and the piping configuration.
- Of particular note for the building is the use of an ice storage system to meet the design cooling load of the building. The peak load, lasting some 5 – 6 hours per day, represents some 60% of the cooling peak during that time. Any increase in ventilation would increase the peak load and cause the ice storage system to deplete early, leaving the building short on cooling later in the work day. Somewhat surprisingly, the AHUs' cooling coils were sized for full load, based on the ice storage contribution, at a 38 degree entering water temperature with a 59 degree leaving temperature for a delta T of 21 degrees; whereas a typical coil selection is sized from 45F to 55F for a 10 degree delta T. The chiller produces 44 degree water with a return temperature of 54 degrees, with contribution from the ice bank for a finite time. The 10 degree delta T, when only the chiller is operating effectively reduces the AHU cooling coil capacities by half. Having been sized for the 21 degree delta T, the cooling coils are smaller and have less flow than they would have at a more conventional selection criteria of 10 degrees, where the chiller operates during the day.
- The chiller has reportedly had 3 compressors replaced in its short life. The maintenance staff indicates these occurred during the winter with the result being they turn the chiller off in colder weather, which is appropriate as long as the enthalpy economizer can handle any cooling load needed on a given day. The chiller in question is a smaller version of the same chiller MEI replaced at around the same age with the same problem. After much observation and analysis, our best conclusion was that the chiller has issues with oil migration and recovery that were inherent in the design and the startup and operating sequences hard coded into the chiller. On startup, the electronic expansion valves open 50 percent, regardless of the load. We surmised that this was to sweep the

migrated oil out of the evaporators and back to the compressors to recover oil, but actually led to liquid slugging of the compressors. The failures experienced were mechanical related to slugging, according to the compressor factory rep we spoke with at the time.

- The recommendations follow a fourfold goal: properly condition and deliver the outside air to the building spaces, better control the humidity and temperature in the spaces, significantly increase the efficiency of the air system, and adjust for changes in use and occupancy over the last 30 years. In general, both the amount and condition of the outside air need to be increased and improved respectively; and several air distribution, control, and maintenance concerns need to be addressed. The most practical method to condition the outside air, taking into account the limited space within the building, is to remove the existing WSHP makeup air units and replace them with a single, rooftop mounted, dedicated makeup air unit. Such a unit would utilize DX cooling and natural gas heating to fully condition the outside air year around. Also, either electric reheat coils need to be added to each WSHP to better control space humidity or the WSHPs need replaced with new units that have an inherent dehumidification capability.
- The only course of action available at this time is to undertake a complete replacement of all but one system evaluated in Phase 1. At the time of replacement of each system, replacement and renovation of the supporting mechanical, electrical, fire alarm, and fire protection will be required to reach code compliance. In the case of some systems, significant alterations to the machine rooms are required to meet fire safety, building, access, and service personnel safety requirements. The work will take significant time to complete in terms of both the overall project and the individual elevator systems. Individual elevators will be out of service for significant periods of time (generally 3-4 months each) to accomplish the work. Elevator equipment lead times are 16 – 20 weeks from approval of submittals. The design team will work with GSD to develop a phasing plan which conveys to the bidders the conditions under which the replacements will occur; including best efforts to have everything (albeit old or new) running during each legislative session. The design team will also review plans for the renovations with the Capital Building Commission in regards to preserving the historic fabric of the building.



## ANTICIPATED REVIEW PROCESS

Upon completion of the evaluation the review team would document, in written narrative form, the comments, concerns or questions the team identified and developed during their review. The intent would be to provide positive, upbeat, constructive input to encourage discussion of items of concern. We envision that the narrative would identify the concern, provide background material in terms of code references or standards, history with similar situations, or interpretations of the program as backup to help make sure that the Owner understands the concern prior to any decisions making. A tracking matrix would be submitted to follow each concern with the Owner and Design team until it is closed out by the Owner. The tracking matrix becomes a living document, creating a "common history" as the design progresses through each phase; documenting the "what, why, and how" the design has evolved.

In terms of interaction and the tone of the review, the key is not to tell the Design team how to accomplish their task, but to find and fill holes that can occur in any design process; suggesting alternate options or paths they should consider. This support of the design process continues throughout, but is critical early in the project; before significant effort is expended by all members of the team. Our design processes see each phase of a project design as headed towards the product, which is construction documents. We believe this allows us to look ahead to constructability from day one and we would anticipate doing so in our reviews. We will conduct reviews on the specifications as well as the drawings. Suggestions related to the project manual, particularly in terms of ensuring competitive bidding, constructability, and minimizing proprietary situations would be included. In summary, we see all this as helping the Owner to guide the process and make good decisions.

Our approach for the project will be as a technical resource to the Owner in the review and decision-making regarding the report findings. Once the written report is complete, we envision meeting first with the Owner to review the report in detail. We then envision meeting with the Owner and Design team to review and discuss the findings, relaying options we may see. We will then follow up as directed.

As previously stated, renovations are at the core of our work. Successful renovations involve an evaluation and recommendation phase being followed by design, detailing, and construction documents. We believe this is where the emphasis on understanding the Owner's needs and goals, along with a detailed understanding of the facility, benefit the project. The interactive nature of the evaluation and the documentation prepared result in a smooth transition from Evaluation to implementation. We will never assume we have all the answers and understand that the Design team members are the professionals of record on the project. The recommendations will be broken down with such items as "mandates" and others as "options" for further evaluation as directed by the Owner. The following projects were all performed using this methodology:

Capital Chiller Plant Modifications  
WV State Building 25 Piping and 6<sup>th</sup> Floor Fit Out  
Building 36 HVAC Renovations

Monongalia County Schools - MTEC and Mountainview HVAC Renovations, Deferred Maintenance and Energy Projects  
Alderson Broaddus Withers Hall HVAC Evaluation and Renovations  
WV Division of Natural Resources - Elkins Operations Center, Pipestem Lodge Piping Modifications, Canaan Lodge Third Party CA  
The Dominion Post Electrical and HVAC Upgrades

#### COLLABORATIVE MEETINGS

As both a prime and sub-consultant on many projects over the years, design collaboration meetings are commonplace. Recent projects with GSD which incorporated meetings of this type include the Elevator Modernizations and Building 5 Freight projects. The Chiller Plant modifications project has included collaborative meetings with gas, electrical, water and sewer utilities, the electrical utility's contractor, tel/dat providers, the Office of Information Technology, the Owners staff, and the project team members. Most every project we do requires collaborative effort and the key is to understand your role in a particular collaboration, be it leader, follower, or advisor. Once a project is successfully bid and under contract, a new level of collaboration begins, collaboration with contractors and subcontractors. Our collaborative efforts in this phase of a project are demonstrated by the letters of reference found in this proposal.

#### THIRD PARTY CONSTRUCTION ADMINISTRATION

MEI has performed third party Construction Administration (CA) on several projects through the years, including The District Apartments, Mon County Schools ALC, and the Canaan Lodge Renovation. Successful third party CA requires a collaborative approach to be effective. The goal, a successful project with minimal surprises and changes, can be difficult when one is the designer of record. It becomes more problematic when one is not. We have found the key is to devote the time to learn the design. To be effective, one must learn and stand the designer's intent. This is accomplished by dedicating significant time to studying all the available information, including reports, memoranda, minutes, along with a painstaking analysis of the project documents. Not only has MEI performed third party CA services but we have done projects where a third party construction/ contract administrator was utilized. We were still involved in CA on these projects but worked with the third party, collaborating to complete the project. A reference letter from the third party is included in this proposal. As previously mentioned, the key to a successful project is dedication while understanding and implementing your role in a particular project.

MEI envisions approaching such a task in the same manner as the design review, observing the construction, bringing up and concerns or questions in a written form. On this project, we have the benefit of involvement from early on so providing CA support is a natural extension of our history with the project. Our mantra is "boots on the ground". We believe by being on-site and developing rapport with contractors, any issues or concerns are more readily brought forward earlier, permitting more effective resolution. Our intent would be to extend the positive feedback relationship developed in design to include the contractor and subcontractors; fostering an environment of collaboration. This is our CA goal on every project.



## TAB 3 –STAFF QUALIFICATIONS



## Staff – Proposed Staffing Plan

**Team Leader/ Primary Point of Contact**

*Craig Miller, PE*

**Lead Reviewer**

*Craig Miller, PE*

**Elevator Consultants**

*Richard Kennedy  
John Dodds*

**Master Code Specialist**

*Jack Jamison*

**Lead MEP Engineer**

*Travis Taylor, PE*

**Lead Designer/BIM Specialist**

*Joseph Machnik*

**Engineer in Training/ HVAC Modeler**

*Eyad AlHalabi*

*\*Staff Resumes to Follow*



**B. Craig Miller, PE**

Craig founded Miller Engineering in 2003, and serves as President and Principal Engineer. He has more than 25 years of experience in design, specification, operations and project management. Since forming Miller Engineering, he has implemented hundreds of project with an emphasis on facility renovation. His broad experience runs the gambit of facility and client types. During his employment with WVU, Craig was directly involved with approximately \$130 million in new capital construction. His experience with a wide range of projects including HVAC, electrical, plumbing, infrastructure upgrades, building automation, energy efficiency and maintenance/renovation, among others, allows him to serve in multiple capacities within a given project. Craig will serve as the "LEAD Reviewer" for Miller Engineering as the main communication interface between the Owner, the Owner's design team, and if third party CA occurs, contractors.

**Project Role: Relationship Manager – Primary Point of Contact**

- *Engineer in Responsible Charge*
- *Design and Project Management of Mechanical, Electrical, Plumbing Projects*
- *Concept and Construction Design*
- *Business Operations and Financial Management Oversight*
- *Quality Assurance and Control*

**Professional Project Highlights**

- WV GSD Building 3,11,54, 86 IAQ Assessment
- WV GSD Building 25 Humidity and Ventilation Assessment
- WVU Life Sciences Building and Student Recreation Center – Owner's Engineer
- Hawks Nest/Twin Falls HVAC
- Mapletown High School HVAC Replacement Phase I & II
- Advanced Surgical Hospital
- Holly River State Park Primary Electric Service Replacements Phase I & II
- Beech Fork State Park – MEP New Construction Design
- Canaan Lodge Addition Third Party CA

**Professional History**

2003- Present	Miller Engineering, Inc.	President, Relationship Manager, Engineer of Record
2002-2003	Casto Technical Services	Existing Building Services Staff Engineer
2001-2002	Uniontown Hospital	Supervisor of Engineering
1995-2001	West Virginia University	Staff Engineer
1990-1995	BOPARC	Caretaker – Krepps Park
1983-1988	University of Charleston	Electrician/HVAC Mechanic

**Education**

1995	West Virginia University	BS- Mechanical Engineering
1988	University of Charleston	BA- Mass Communications

**Licenses and Certifications**

- Professional Engineer (West Virginia, Pennsylvania, Maryland)
- Licensed Master Plumber
- LEED-AP Certified



## **Travis Taylor, PE**

Experience in project management facilitates Travis’s ability to create and design constructible projects. Prior to joining the Miller Engineering team he was directly responsible for managing \$10 million in electrical construction budgets. His experiences encompass both new construction and renovation. Travis maintains professional competencies by attending seminars and continuing education classes. These include local ASHRAE classes in addition to classes on electrical systems, and also steam systems through Shippenburg Pump Company. As lead engineer he provides HVAC, mechanical, plumbing, and electrical design solutions and services for our clients. In addition, he is part of our team’s complete assessment process in both planning and MEP design through construction administration. Travis will backup Craig as review on this project and will direct the staff as required to support the review effort.

### **Project Role: Lead MEP Engineer**

- *Design of Mechanical, Electrical, and Plumbing Systems*
- *Building Information Modeling - Revit*
- *Constructible Materials Evaluation*
- *Site Evaluation and Mechanical System Review*
- *Submittal and RFP Review*
- *RFI Coordination, Review, and Response*
- *Construction Observation*

### **Professional Project Highlights**

- Blackwater Falls Lodge Boiler Replacement
- MTEC Welding Shop
- WV State Building 36 HVAC Upgrades
- WV State Building 25 HVAC Piping Replacement
- Graftek Steam Systems Evaluations and Modifications
- Bobtown Elementary School HVAC Upgrades
- Holly River State Park Primary Electric Service Replacements Phase I & II
- Pipestem Lodge McKeever Lodge HVAC Piping Replacement

### **Professional History**

2011-Present	Miller Engineering, Inc.	Staff Engineer
2006-2011	Tri-County Electric, Co.	Project Manager
2006-2006	Schlumberger	Field Engineer Trainee - MWD

### **Education**

2006 West Virginia University, BS – Mechanical Engineering

### **Licenses and Certifications**

- Professional Engineer - State of West Virginia
- OSHA 10-hour Course: Construction Safety & Health

# Staff – Qualifications and Experience



## **Jack Jamison**

Jack brings 20 years as an electrical/building inspector and over 25 years of experience in the commercial electrical construction industry. His knowledge and experience are valuable resources to Miller’s complete assessment process.

### **Project Role: Master Code Official**

- *Facility Review, Code Research, Field Observations, Issue Resolutions, and Project Evaluation*

### **Professional History**

2010- Present	Miller Engineering, Inc.	Code and Construction Specialist
1999-2010	Megco Inspections	Chief Inspector
1972-1998	Jamison Electrical Construction	Master Electrician

### **Education**

1971 Fairmont State College, BS-Engineering Technology-Electronics

### **Licenses and Certifications**

- Master Code Professional, IAEI Master Electrical Inspector, Class C Electrical Inspector – WV, PA, MD, & OH
- ICC Commercial Building, Building Plans, Commercial Plumbing, Residential Energy, and Accessibility Inspector/Examiner
- WV Master Electricians License
- NCPCCI-2B, 2C, 4B, 4C: Electrical & Mechanical General/Plan Review
- OSHA 30 Hour Course: General Industry
- NFPA Code Making Panel 14 – NEC 2014 Edition



## **Joseph Machnik**

Joe has experience with AutoCAD, MEP and Revit MEP. He provides design modeling, drafting and supervised design services and construction support for Miller Engineering.

### **Project Role: MEP Designer**

- *Revit/CADD Coordination of New Construction and Renovation Designs*
- *Building Information Modeling Specialist*

### **Professional Project Highlights**

- Bobtown Elementary HVAC
- WV State Building 25 HVAC Piping Replacement
- Blackwater Falls Boiler Replacement
- Suncrest Middle Gym HVAC
- North Elementary Gym HVAC
- Graftek Steam Systems Evaluations and Modifications
- WV State Building 36 HVAC Upgrades
- Pipestem Lodge HVAC Piping Replacement
- Westwood Middle Cooling Tower

### **Professional History**

2010 – Present Miller Engineering, Inc. MEP Designer

### **Education**

2008 Penn State – Fayette, AS - Building Engineering Systems Technology: *Building Environmental Systems Technology*

2007 Penn State – Fayette, AS - Building Engineering Systems Technology: *Architectural Engineering Technology*

### **Additional Training**

2016 – Shippenburg Pump Company – Steam Systems Training





## **Eyad Alhalabi**

Eyad joined Miller Engineering in June 2019. A recent graduate of West Virginia University, he has been eager to learn the means and methods of MEP consulting. Eyad assists the MEP design team with design calculations and is rapidly learning design software such as Autodesk REVIT. He is also learning construction administrations along with building codes and standards. Eyad is currently preparing to take the Fundamentals of Engineering exam.

### **Project Role: Junior Engineer**

- *Design Calculations*
- *Drafting of MEP Systems*
- *Assist with Construction Administration*

### **Professional Project Highlights**

- Morgantown ALC
- WVDA Ripley Warehouse Electrical Upgrades
- Huntington 8th & 10th Street Pump Stations
- Huntington Floodwall Pump Station Automation

### **Professional History**

2019- Present                      Miller Engineering, Inc.      Junior Engineer

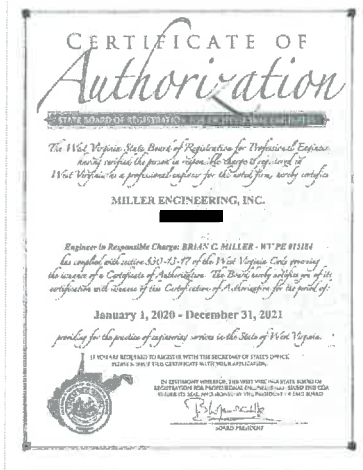
### **Education**

2019      West Virginia University, BS - Mechanical Engineering

### **Licenses and Certifications**

- ASHRAE Student Member

# Staff – Proposed Staffing Plan



West Virginia State Board of Registration  
for Professional Engineers

**BRIAN C. MILLER**  
WV PE [REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

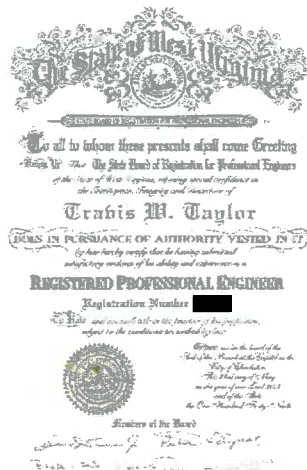
EXPIRES December 31, 2020

West Virginia State Board of Registration  
for Professional Engineers

**TRAVIS W. TAYLOR**  
WV PE [REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

EXPIRES December 31, 2020



# Richard A. Kennedy & Associates

## Elevator Consultants

1110 Independence Drive  
West Chester, PA 19382  
rakelevator@aol.com

Office 610-793-1372  
Cell 484-802-9201  
Fax 610-793-5093

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### CURRICULUM VITAE

Occupation: President, C.E.O., Kencor Inc.

Date of Birth: January 14, 1948

Education: Widener University, Chester, Pa.  
Degree: Masters in Business (MBA) 1977  
Villanova University, Villanova, Pa.  
Degree: Arts & Science (A & S) 1969

Work Experience: 1982-Present: **KENCOR INC., ELEVATOR SYSTEMS**  
Work Duties: C.E.O., primarily responsible for interfacing all  
Departments, responsible for design specifications,  
Marketing, consulting to A. & E., Actively engaged  
in all aspects of field operations.

1981-Present **RICHARD A. KENNEDY & ASSOCIATES**  
Work Duties: Principle/Owner primarily responsible for consulting in all  
areas of the elevator field, including escalators, moving  
walks, dumbwaiters, and other lifting devices. Provide  
expert witness forensic services and testimony for the legal  
profession, insurance companies, and building owners.

1994-1996 **DELCO Elevator Equipment Sales, Inc.**  
Work Duties: C.E.O., primarily responsible for interfacing all  
departments of a hydraulic elevator manufacturing  
company.

1978-1981 **ELEVATOR SALES & SERVICE, INC.**  
Work Duties: C.E.O. primarily responsible for interfacing all  
departments, responsible for design specifications,  
marketing, consulting to A. & E., actively engaged in all  
aspects of field operations, Directly responsible for all  
union negotiations and education.

1972-1978 **SALES MANAGER/SERVICE MANAGER**

Work Duties: Directed all marketing efforts and provided field supervision where required to union field personnel.

1969-1972 **SERVICE ENGINEER**

Work Duties: Primarily responsible for the maintenance and servicing of vertical transportation equipment associated with the elevator trade.

Associations/  
Appointments/  
Awards:

President of the National Association of Elevator Constructors (2010-11);  
Board of Directors of the National Association of Elevator Constructors (2009-2011);

Certified Elevator Inspection Agency for State of PA;

Member of the National Association of Elevator Safety Authorities (NAESA);

Qualified Elevator Inspector (Q.E.I.) Certificate #1193;

Certified Elevator Technician (C.E.T.) Certificate #05-00055

Board of Directors of Elevator Contractor's Council of the Association of Building Contractors (ABC);

State of Maryland Elevator Mechanic's License;

State of Delaware Special Limited Electrical License for Elevators;

State of New Jersey Elevator Mechanic's License;

National Association of Elevator Contractor's Recipient of the "William Sturgeon" Award, September 2014;

Chairperson of the Vertical Transportation Management Course, NAEC, 2010 to present;

Member, MWAA (Metropolitan Washington Airports Authority) Board of Directors, Presidential Appointment confirmed by U.S. Senate July 2014 (term ended May 2016).

# CURRICULUM VITAE

**JOHN M. DODDS**

[REDACTED] | 484-995-3642 | jdodds@kencorelevator.com

## OCCUPATION

President/Chief Operating Officer, Kencor, Inc. Elevator Systems

## EDUCATION

Pennsylvania State University, State College, PA

Degree: Bachelor of Science Business 2020

Delaware Technical College, Wilmington, DE

Degree: Associates in Business 2014

## WORK EXPERIENCE

### **KDA Elevator Consultants, LLC**

**President** 2019-Present

Primarily responsible for executing all vertical transportation consulting on sites, including conducting maintenance audits, drafting specifications, performing inspections, and coordinating with engineers, architects, and elevator companies.

### **Kencor, Inc. Elevator Systems**

**President** 2019-Present  
Primarily responsible for all internal and external operations of the company including establishing short and long-term goals, plans and strategies.

**Chief Operating Officer** 2011-2019

Primarily responsible for interfacing all departments, responsible for design specifications, marketing, sales, and actively engaged in all aspects of field operations.

**Director of Field Operations** 2006-2011

Primarily responsible for ensuring the company's daily activities run smoothly by interfacing all field departments including service, repair, construction, and modernization.

**Service Manager** 2004-2006

Primarily responsible for provided field supervision to field personnel within the service department as it relates to daily operations.

**Service Engineer**

1998-2004

Primarily responsible for the maintenance and servicing of vertical transportation equipment associated with the elevator trade.

**Richard A. Kennedy & Associates****Elevator Consultant and Inspector**

2009-Present

Primarily responsible for executing all vertical transportation consulting on sites, including conducting maintenance audits, drafting specifications, performing inspections, and coordinating with engineers, architects, and elevator companies.

**ASSOCIATIONS, APPOINTMENTS, AWARDS**

Certified Elevator Inspector for state of Pennsylvania License #4863	2009-Present
Member of the National Association of Elevator Safety Authorities (NAESA)	2009-Present
Member of the National Association of Elevator Contractors	2005-Present
Qualified Elevator Inspector (QEI) Certification #C-4470	2009-Present
Certified Elevator Technician (CET) Certification #05-00019	2005-Present
Certified Elevator Technician Supervisor (CETS)	2005-Present
Certified Elevator Technician Accredited by A.N.S.I. (CETA)	2014-Present
National Association of Elevator Contractors Board of Directors	2016-Present
Secretary National Association of Elevator Contractors	2017-Present
National Association of Elevator Contractors Certification Board	2010-2016
Chairman National Association of Elevator Contractors Certification Board	2013-2016
Chairman National Association of Elevator Contractors QEI Program	2018-Present
Chairman National Association of Elevator Contractors Member Services	2017-Present
State of Delaware Master Electrician Special-Elevators License #T1-E003361	2014-Present
State of Maryland Elevator Mechanic's License #1130	2014-Present
District of Columbia Elevator Mechanic License #ELM2002046	2018-Present
State of New Jersey Elevator, Escalator, Moving Walkway Mechanic's License [REDACTED]	2019-Present



*What our satisfied customers have to say...*

“Hard working, do-whatever-it-takes, diligent team that provides excellent customer service is what you can expect from Miller Engineering.”

*--Chris Halterman*

“As a design/build team, working with Miller Engineering, our project involving a private surgical hospital together was a success – completed ahead of schedule and on budget. Miller worked with us throughout the project to consult, engineer and inspect the mechanical systems. Craig Miller, PE and his staff are working with us again, and are very important members of our design/build team. I highly recommend their services.

*--Richard J. Briggs*

**Brad Leslie, PE**  
*Assistant Chief  
 WV Division of Natural  
 Resources  
 State Parks Section  
 324 4<sup>th</sup> Avenue  
 South Charleston, WV 25303  
 (304) 558-2764 ext. 51823  
[Bradley.S.Leslie@wv.gov](mailto:Bradley.S.Leslie@wv.gov)*

**Kerri J. Wade, MSW**  
*Extension Agent - Kanawha  
 County  
 West Virginia University  
 4700 MacCorkle Avenue, SE  
 Suite 101  
 Charleston, WV 25304  
 304.720.9573  
[Kerri.Wade@mail.wvu.edu](mailto:Kerri.Wade@mail.wvu.edu)*

**J. Douglas Carter**  
*General Manager  
 Potomac Valley Transit  
 Authority  
 185 Providence Lane  
 Petersburg, WV 26847  
 (304) 257-1414  
[icarter@potomacvalleytransit.org](mailto:icarter@potomacvalleytransit.org)*

**Bob Ashcraft**  
*School Safety & Loss  
 Coordinator  
 Monongalia County Schools  
 533 East Brockway Street  
 Morgantown, WV 26501  
 (304) 276-0152  
[rbashcraft@access.k12.wv.us](mailto:rbashcraft@access.k12.wv.us)*

**Mike Trantham**  
*Program Administrator Senior  
 WVU Environmental Health &  
 Safety  
 P.O. Box 6551  
 975 Rawley Avenue  
 Morgantown, WV 26506  
 (304) 293-5785  
[Mike.Trantham@mail.wvu.edu](mailto:Mike.Trantham@mail.wvu.edu)*

**Richard J. Briggs**  
*Vice President  
 Lutz Briggs Schultz & Associates  
 Inc.  
 239 Country Club Drive  
 Ellwood City, PA 16117-5007  
 (724) 758-5455  
[lbsa@zoominternet.net](mailto:lbsa@zoominternet.net)*

*From Jonathan Miller, Mechanical Project Manager, Nitro Mechanical:*

“Miller Engineering is not your average engineering company; they work with the owner AND the contractor to solve all issues that arise throughout the project to make the process as fluid as possible.

February 7, 2020

RE: Letter of Reference Miller Engineering

To whom it may concern

I am writing this letter of reference on behalf of Craig Miller, Miller Engineering, Inc., Morgantown, WV. My company, Eckles Construction Services, Inc. has been providing Clerk of the Works services for the Monongalia County Board of Education for the past five years. We have worked on various projects, ranging from additions and renovations to new building construction, during our involvement with the county. Those projects have been designed by different Architectural and Engineering design teams. Most of the projects have also received SBA funding.

It has been our privilege and pleasure to work with Craig and his team on four projects during that time; two of which received partial SBA funding. Mr. Miller is extremely knowledgeable regarding MEP systems and their operation. He is perhaps the most hands on engineer I have encountered in my 27 years of related school construction in both Pennsylvania and West Virginia. More importantly Miller Engineering is very responsive to the contractors needs during the construction process.

I would not hesitate to recommend Miller Engineering as the Design Professional for your project.

Regards,

  
Kenneth Holsopple

President





P.O. Box 558  
2155 Park Avenue  
Washington, PA 15301

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**General Construction & Consulting**

Phone 724/229-0119  
Fax 724/225-1180

To whom it may concern,

As the Vice-President and Lead Project Manager of MacBracey Corporation, a commercial and industrial general contractor located in Washington, PA, I am writing to support and endorse Miller Engineering and their ability to provide construction design services as well as project management.

MacBracey has found Miller Engineering's drawings and specifications to be both thorough and accurate as to the in-field conditions. Any issues that have come about throughout a construction project Miller Engineering is quick to develop a corrective plan and ensured the project doesn't face delays.

I have found Miller Engineering to go above and beyond the industry standard throughout the entire construction process to make sure everything stayed on track. I have spoken with many members of Miller Engineering "after hours" to solve an issue that needed addressed by the following morning. This is a characteristic that you don't see with a lot of design teams.

I found the entire Miller Engineering team to be both knowledgeable and professional. We at MacBracey would enjoy the opportunity to work with Miller Engineering again in the future. It is truly refreshing to work with a design team that has a passion for the industry and is willing to work with everyone involved to ensure the project gets done correctly and in a timely manner.

Sincerely,

*Patrick Bracey*

Patrick Bracey  
**Vice President,  
MacBracey Corporation**

**PENNINGTON PLUMBING & HEATING INC.**

301 George St. Beckley WV 25801

License WV 001456

April 17, 2019

To Whom it May Concern,

Re: Miller Engineering Design Firm

Pennington Plumbing & Heating has worked with Miller Engineering on numerous projects throughout the years, ranging in size from several hundred thousand dollars to several million. We have always found their firm to be professional, competent, and helpful.

We have found that they are always available to help on challenging situations on different projects, and their designs have had great success on the projects that we have been involved with. They have the capability to handle MEP designs of any size and are always open to modifications that allow the owner to save time and money while maintaining the highest quality and design intent.

We would have no issue recommending their firm to building owners seeking design and construction administration.

Should you have any questions please do not hesitate to contact me.

Best Regards,

Eric Mahaffey  
President.



June 6, 2018

RE: Miller Engineering

To Whom it May Concern,

I have worked on several project with Miller Engineering, over the last few years. Craig Miller and his staff are some of the most detail-oriented engineers I have met. They take extra time, and care, to ensure that their design meets the requirements set forth by the owner and that trades are coordinated properly. Their staff make routine visits to the jobsite to ensure the quality of installation meets their specified standards.

Miller Engineering is also willing to help with value engineering, if required, to meet budgets. However, they are not willing to sacrifice the quality, set forth, in their original design standards. This is an admirable trait in today's engineering world. Many times, value engineering is done without the original designer's review or they may allow substandard products and quality is sacrificed as a result.

In closing, Craig Miller always states that "working with them is different". He's correct. In a world where things are done with little input or involvement by the engineering firm during construction, they stand out as a firm who truly cares. They put thought into their design and the functionality of buildings and the results speak for themselves. Their designs are quality and built to last.

Brian D. Gaudiano

Vice President



## Project Experience: Elevator

### **Building 5 Elevator Replacement**

Charleston, WV

#### **Services Provided:**

- Mechanical
- Electrical
- General Trades

**Contract Amount: \$483k**

**Owner: State of West Virginia –  
General Services Division**



Miller Engineering was retained by WV General Services Division to design the replacement of service elevator #6 in WV Building 5. The hoisting system including motor generator, cable drive & cabling, sheaves, gear drive, controls, safeties, & slings are to be replaced. The cars, doors, calls, and indicators will also be replaced. The existing rails and door frames remain in place and will be modified. An existing rail leader which was run inside of the elevator shaft will be concealed with a drywall chase to meet elevator code. The elevator chase will be upgraded with new sump pump, lighting, receptacles, and fire alarm. The HVAC system in the elevator penthouse will be modified to better meet the equipment requirements. The project has specific means and methods called out in order to keep the remaining elevators in operation while #6 is being replaced. The project has been bid and is scheduled to begin in the near future.

#### **Project Contact:**

*David Parsons, Operations and  
Maintenance Manager  
State Capitol, Room E-119  
(304) 957-7122*

## Project Experience: Elevators

### **West Virginia State Capitol Complex** Charleston, WV

#### **Services Provided:**

- Elevator Evaluation
- Mechanical
- Electrical
- Plumbing
- Fire Alarm
- Fire Protection
- Construction Management

**Estimated Budget: \$4.2M**

**Facility Area: N/A**

**Owner: WV GSD**



MEI and Richard Kennedy and Associates were retained to evaluate 31 existing elevator systems and design modernizations of each in a three phase project approach. The scope of service includes modernizing the machine rooms and bringing the systems into compliance with no or a few variances as possible. The team prepared a detailed report with discussions, estimates, recommendations, executive summary, and an elevator system "primer" to assist readers in more thoroughly comprehending the report. The supporting MEP systems were evaluated and the recommendations have been developed into documents for bidding.

Project Contact:  
*Kari Dean*  
Project Manager  
WV General Services Division  
112 California Ave  
Charleston, WV  
304-957-7133

## Descriptions of Past Projects Completed – 3rd Party CA

### Monongalia Board of Education Middle School ALC

#### Services Provided:

- Construction Administration
- Mechanical
- Electrical & Plumbing Review

**Total Area: ~20,000 sq ft**

**Owner: Monongalia County Board of Education**



Miller Engineering was brought in to assist Monongalia County Schools with the Middle School Alternative Learning Center (ALC). The ALC was a project being constructed "in house" by the Mon County Schools' facilities staff. MEI worked with the MCBOE to review the intended construction plans for the ALC, make recommendations, and prepare drawings for review by the appropriate agencies for review. The electrical and plumbing systems' designs were reviewed with MEI making and documenting recommendations for both code compliance, efficiency, and operations. The mechanical HVAC systems were designed by MEI. During construction, MEI reviewed product submittals from vendors for compliance with the plans and specifications. Site visits were performed to document the construction status and also for compliance. Assistance was provided to the MCBOE to assist with obtaining the proper permits and obtain a Certificate of Occupancy from the WV State Fire Marshal's Office.

Project Contact:  
*Ron Lytle, Board Member*  
*Monongalia County Board of Education*  
*Phone: (304) 276-0669*

## Descriptions of Past Projects Completed – Construction Admin

### Canaan Valley Resort

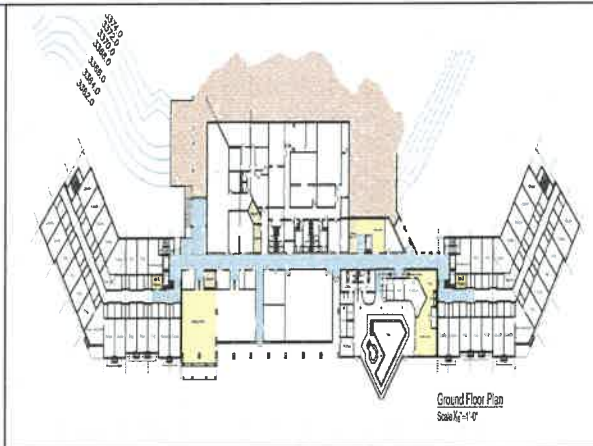
#### Services Provided:

- Electrical
- Plumbing
- HVAC
- Hydronic Pipe

**Estimated Budget: \$30M**

**Facility Area: 68,000 ft<sup>2</sup>**

**Owner: West Virginia Division of Natural Resources**



Project Contact:  
 Bradley S. Leslie, PE, Assistant Chief  
 State Parks Section  
 Phone: (304) 558-2764

Part of keeping a large project on schedule is the ability of Miller Engineering Inc.'s staff to provide rapid and complete response to any contractor questions. MEI was brought in by the owner late in design to provide 3<sup>rd</sup> party MEP design review and construction administration related to delivery and quality assurance. The design review resulted in change orders during bidding to catch and resolve issues and concerns. MEI's staff was very involved in keeping the project on schedule and in accordance with the construction documents. Detailed construction observation helps to minimize downtime and change orders. MEI's construction administration provided technical support for problem resolution throughout the project, warranty and issue support and quality of work evaluation during



## Project Experience: Ventilation Evaluation

### West Virginia State Building 25

Parkersburg, WV

#### Services Provided:

- Evaluations of Original Design of Existing Systems

**Estimated Budget: Unknown**

**Facility Area: 58,500 ft<sup>2</sup>**

**Owner: State of West Virginia –  
General Services Division**



MEI was recently retained to evaluate the original design and current status of the water source heat pump system serving Building 25 in terms of outside air, humidity, and ventilation efficacy. MEI reviewed the original design drawings in the context of the original design intent and then in terms of current codes and standards. MEI performed site reviews to generally verify the installation followed the design and then the overall operating effectiveness of the system. MEI prepared an evaluation report detailing recommendations to alter the original design, with cost estimates, for the Owner. The report included background, discussion, recommendations and an executive summary. The Owner is implementing the results of the evaluation.

Project Contact:  
*Scot Casdorff*  
*Manager, Engineering*  
*WV GSD*  
*112 California Ave*  
*Charleston, WV*  
*(304) 957-7145*

## Experience – Evaluation and Project Tracking

### Capital Complex Chiller Plant Evaluation and Modifications

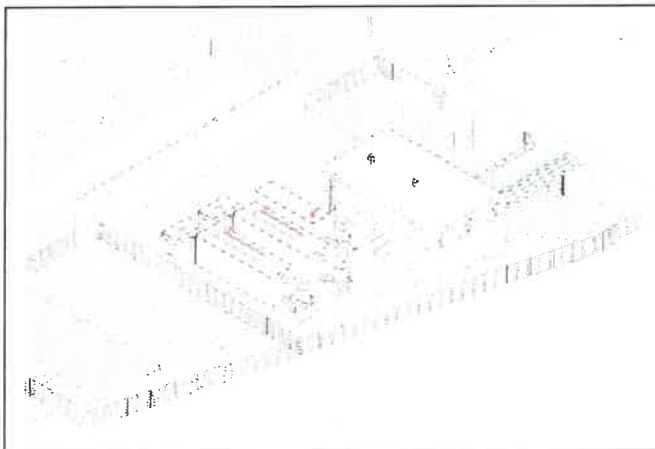
#### Services Provided:

- Evaluation – Study
- Electrical
- Mechanical
- Plumbing

**Project Cost: \$1.3M (est.)**

**Facility Area: approx. 7,500 ft<sup>2</sup>**

**Owner: WV GSD**



The existing chiller plant serving the WV State Capital Complex is 20 years old. The Owner wishes to reduce energy costs associated with the electrical demand metering applied to the plant's electrical service. MEI was retained to evaluate multiple options to reduce electrical demand, and thereby the operating costs. MEI reviewed the original design in great detail to determine the design intent. The campus was the block cooling modeled to compare the operating conditions to the design and to model options for reduction, including ice storage and alternate energy source methods. 10 configurations were reviewed developed and costs of each estimated. The Owner has selected an option and we are proceeding with design.

Project Contact:  
*Dave Parsons*  
Energy Manager  
WV GSD  
112 California Ave.  
Charleston, WV  
304-957-7122

## Descriptions of Past Projects Completed – 3rd Party CA

### **The Domain at Granville** Granville, WV

#### **Services Provided:**

- Construction Observation

**Total Area: ~370,000 sq ft**

**Construction Cost: ~\$30 million**

**Owner: Asset Plus Companies**



Photo Courtesy [www.domainmorgantown.com](http://www.domainmorgantown.com)



The Domain at Granville is an apartment complex of 336 apartment units ranging from one to four bedrooms across 14 buildings. Additionally, there is a clubhouse and recreation facilities including a pool with cabana and athletic courts. MEI was retained by the owner to provide construction observation. MEI reviewed all installations including site work, buried utilities, pre-cover, and final walkthroughs of the entire facility. A site field report was created for every visit and transmitted to the owner and general contractor. The construction was reviewed for compliance with local and state codes in addition to the original design documents. MEI would perform site visits alongside all affected subcontractors to review installations and identify any deficiencies to be addressed and promptly resolved by the contractor. MEI also was involved in meeting with the proper review agencies and Authorities Having Jurisdiction (AHJ) on site to review the construction for compliance. The Domain at Granville was a large project with MEI's construction observation occurring over a time span of approximately 14 months.

#### **Project Contact:**

*Asset Plus Companies*  
5151 San Felipe, Suite 2050  
Houston, TX 77056

## Descriptions of Past Projects Completed – MEP

### Mapletown Junior/Senior High School Elevator Addition

#### Services Provided:

- Elevator Addition
- MEP Relocation
- Elevator Lobby Construction

**Estimated Budget: \$650K**

**Facility Area: 18,500 ft<sup>2</sup>**

**Owner: Southeastern Greene  
School District**



The Southeastern Greene School District in Pennsylvania made the decision to add an elevator to Mapletown Jr/Sr High School. Miller Engineering was hired to provide design consultation on the project. After walking the facility and meeting w/ facilities staff, it was determined that the loading dock would be the best location for the elevator. A three stop hydraulic elevator will be installed. Miller hired Alpha Associates for assistance with architectural and structural design related to the elevator shaft and new elevator lobby that will be created on the second floor. Existing mechanical, electrical, and plumbing systems had to be relocated for the elevator installation as well as new MEP extended to serve the elevator. The project is currently under construction to be completed in August 2017.

Project Contact:  
Patrick Bracey  
MacBracey Corporation  
(724) 229-0119

## Project Experience – HVAC, Electric

### Withers Brandon Hall

Philippi, WV

#### Services Provided:

- Electrical
- HVAC

**MEP Budget: \$700k**

**Facility Area: 31,800 ft<sup>2</sup>**

**Owner: Alderson Broaddus  
University**

**Status: Bidding**



#### PROJECT GOALS:

Evaluate HVAC and design new system to be completed during summer.

**MEI determined that converting to WSHPs would save insulation costs while causing minimal disturbances out in office / class space. The majority of new piping and ductwork will be in mechanical areas. This will meet the compressed schedule requirement.**

As part of renovations to Withers Brandon Hall at Alderson Broaddus University, MEI was brought in to evaluate and design upgrades to the HVAC system.

The existing chiller and piping insulation had failed. The existing system was a two-pipe system with chiller and boilers serving fan coil units. MEI proposed to re-use the piping and replace the fan coil units with water source heat pumps (WSHP). This allows the existing piping to be re-used and piping insulation would not have to be replaced. The chiller will be replaced with a fluid cooler located outside the building. The three non-condensing boilers will be replaced with a much more efficient modulating condensing "double stack" boiler.

The ventilation units are located in the unconditioned attic space and are difficult to perform maintenance on. New ducted heat pumps tied to energy recovery ventilators will tie into the existing fresh air duct to provide ventilation and relief air. The design limits the amount of modifications outside of the mechanical rooms which will aid with the compressed construction schedule. The project is out for bid to be complete by August 2019.

Project Contact:  
*David Snider, AIA*  
*Omni Associates, Inc*  
*(304) 367-1417*

## Project Experience – MEP Deferred Maintenance

### MCBOE DEFERRED MAINTENANCE PROJECTS

#### Services Provided:

- Mechanical
- Electrical
- Plumbing
- Fire Alarm

**Estimated Budget: \$3.0M**

**Contract Amount: \$3.0M**

**Owner: Monongalia County Board of Education**

**Status: Phase 1 in construction**



#### PROJECT GOALS:

**Initially, design and implement deferred maintenance projects.**

#### PRIORITY GOAL:

**React to and implement a plan to address an AC failure in a large school.**

**The goal was achieved using an “all hands on deck” approach to evaluating, designing, and bidding a project on a significantly accelerated schedule.**

Monongalia County Schools has begun taking steps to address some significant deferred maintenance concerns in buildings throughout the county. Several mechanical systems have reached the end of, or exceeded, their operational life and need significant repair or replacement. Miller Engineering was retained to design and implement the projects. As a first step, MEI was asked to evaluate the Owner’s list of projects and review the facilities in question and make recommendations to modify, re-prioritize, or change the list based on the review.

As MEI was doing our review work in October, the AC system in one building failed and we were tasked with evaluating the building and making, then implementing recommendations to ensure the building had AC on 1 April 2019. The school year leaves little opportunity to take systems offline for major renovation. No accurate drawings of the systems existed resulting in intensive field work to re-create the original design. We planned and bid an HVAC upgrade with realistic milestone dates (such as new AHU coils installed over Christmas break) that made the deadline possible. An accelerated design permitted us to bid and receive bids in time for Board approval that resulted in the AHU coils be ordered and installed over the break.

Additional milestone were met and the cooling was available as requested by the Owner.

The next phase of the project is in work.

Project Contact:  
*Drew Schaefer*  
*Clerk of the Works*  
*Eckles Group*  
*Phone: (412) 523-1443*



## TAB 5 – PROJECT FORMS



**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: GSD2000000005**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |                                                    |                                          |
|----------------------------------------------------|------------------------------------------|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Al'No Engineering Inc  
Company  
[Signature]  
Authorized Signature  
275/17/20  
Date

**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.  
Revised 6/8/2012





Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Expression of Interest  
 02 – Architect/Engr

Proc Folder: 727647

Doc Description: Addendum No. 1 EOI: Third Party Peer Review Building Four

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2020-06-12	2020-06-24 13:30:00	CEOI 0211 GSD2000000005	2

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

Vendor Name, Address and Telephone Number:



**FOR INFORMATION CONTACT THE BUYER**

Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

Signature

FEIN # — — 1386

DATE 20 Jun 20

All offers subject to all terms and conditions contained in this solicitation

STATE OF WEST VIRGINIA  
Purchasing Division  
**PURCHASING AFFIDAVIT**

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

**ALL CONTRACTS:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Miller Engineering Inc

Authorized Signature: [Signature] Date: 22 Jun 20

State of West Virginia

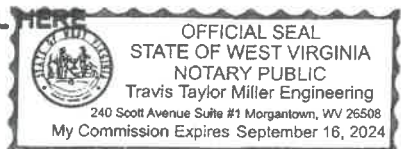
County of Monongalia, to-wit:

Taken, subscribed, and sworn to before me this 22 day of Jun, 2020.

My Commission expires September 16, 2024.

NOTARY PUBLIC [Signature]

*Purchasing Affidavit (Revised 01/19/2018)*



AFFIX SEAL HERE